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In the 6 GHz Report & Order, the Commission designated additional spectrum for unlicensed operations, envisioning its use for new innovative technologies and services that will advance the Commission's goal of making broadband connectivity available to all Americans, especially those in rural and undeserved areas. Unlicensed Use of the 6 GHz Band, 35 FCC Rcd 3852, 3853 (2020).

Through this application for an experimental license, Professional Satellite Services, Inc. seeks to advance these goals by testing available equipment across the UNII-5 band for potential delivery of enhanced fixed wireless broadband services.

The experimental operations will involve field deployment and testing of Cambium Networks 6 GHz radio technology on our 2 existing towers at rural sites in Carroll county Arkansas. These operations will evaluate the greater throughput capabilities available in these bands using 80/160 MHz channels. The program will also use up to 60 remote units at customer locations.

Professional Satellite Services, Inc. data collection program will operate without causing harmful interference to incumbent users. Professional Satellite Services, Inc. will work with any nearby licensed incumbents that it identifies, based on information provided in the FCC’s databases, to ensure that its operations will avoid any harmful impact on such existing users.

Deployment Parameters:

We currently use Cambium unlicensed equipment on our towers and are waiting fo exact specifications of antennas from Cambium that will work with their new ePMP 4600 equipment, but we would be mounting up to 3 ePMP 4600 access point radios and antennas each at our two existing towers sites.

Berryville Tower Site:
ASR: 1320545
36.38594, -93.54736

Green Forrest Tower Site:
ASR: 1037668
36.29198, -93.43581

The Cambium access point equipment we want to use has the following characteristics:
Frequency range: 5925-7125MHz
Station class: FX
Output power/ERP: 250mW/4.0 W
Mean peak: P
Frequency tolerance: 1152Hz
Emission designator: 160MHz BW 160M0W7D
Modulating signal: OFDM

Additionally, the trial will deploy up to 60 end users located with a 10-mile radius of the fixed locations, with a maximum power of 250mW/4.0 W ERP.